AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (original) A balloon-deployable stent comprising:

an armature made in a first material allowing an expansion over time of said armature;

a matrix made in a second material, said matrix being added on said armature;

wherein said second material gradually loses mechanical properties thereof by creeping, after the stent is deployed under a deployment of a balloon introduced into said armature, thereby allowing a controlled radial expansion of said armature over a period of time.

2. (original) The stent of claim 1, wherein said second material loses the mechanical properties thereof at a temperature encountered in a human body.

3. (currently amended) The stent of ~~any one of claims 1 and 2~~ claim 2, wherein said second material ~~comprises~~ includes at least in part polymeric materials, said second material having an initial rigidity sufficient to maintain the stent in a contracted position on the balloon during storage, a low yield strain from an elastic to a plastic regime, a sufficiently high total elongation, and creeping properties at human body temperature.

4. (original) The stent of claim 3, wherein the initial rigidity of said second material is at least 1000 MPa, the yield strain thereof is less than about 8%, the total elongation thereof is greater than about 100 %, and the creeping properties thereof allow a loss of at least 50% of the Initial rigidity thereof within 1000 hours.

5. (currently amended) The stent according to ~~any one of claims 1 to 4~~ claim 1, wherein said matrix comprises a number of rings.

6. (original) The stent according to claim 5, wherein said rings are selected in the group consisting of rings braided around said armature and rings secured in slots provided on said armature.

7. (currently amended) The stent according to ~~any one of claims 1 to 4~~ claim 1, wherein said ~~matrix is~~ matrix includes a coating deposited on said armature.

8. (currently amended) The stent ~~of any one of claims 1 to 7~~ according to claim 1, wherein said first material is a shape memory alloy.

9. (original) The stent of claim 8, wherein said shape memory alloy is nitinol.

10. (currently amended) The stent ~~of any one of claims 1 to 9~~ according to claim 1, wherein said second material is selected in the group consisting of polycarbonate and polyethylene.

11. (currently amended) The stent ~~of any one of~~

~~claims 1 to 10~~ according to claim 1, wherein said stent, including said matrix, mounted on the balloon, is introduced into a retention sheath preventing a creep of said matrix during storage of the stent, thereby preventing a deployment of the armature.

12. (currently amended) A method for expanding a lumen, comprising:

~~a) introducing~~ introducing in the lumen a stent comprising an armature made in a first material allowing self-deployment of the armature, and a matrix made in a second material having creep properties that make it gradually lose mechanical properties thereof;

~~b) deploying~~ deploying the armature using a balloon positioned in the armature, the balloon ensuring [[an]]a substantially irreversible deformation of the matrix during inflation of the balloon and allowing a self-deployment of the armature; and

~~c) removing~~ removing the balloon from the lumen;

whereby the creep properties of the second material allow the progressive self-deployment of the armature and a positioning of the armature at a predetermined position in the lumen with minimised damage on walls of the lumen.

13. (currently amended) The method of claim 12, wherein the second material ~~comprises~~ includes at least in part polymeric materials and has an initial rigidity sufficient to maintain the stent in a contracted position on the balloon during storage, a low yield strain from an elastic to a plastic regime, a sufficiently high total elongation, and creep properties temperatures encountered in a human body.

14. (original) The method of claim 13, wherein the

initial rigidity of the second material is at least 1000 MPa, the yield strain thereof is less than about 8%, the total elongation thereof is at least about 100 % and the creep properties thereof allow a loss of at least 50% of the initial rigidity within 1000 hours.

15. (currently amended) The method ~~of any one of claims 12 to 14~~ of claim 12, wherein the armature ~~comprises~~ includes a shape memory alloy.

16. (original) The method of claim 15, wherein the shape memory alloy is nitinol.

17. (currently amended) The method ~~of any one of claims 12 to 16~~ of claim 12, wherein the second material ~~comprises~~ includes a polymer selected in the group consisting of polycarbonate and polyethylene.

18. (currently amended) The method ~~of any one of claims 12 to 17~~ of claim 12, further comprising ~~before step a)~~ removing the stent from a retention sheath covering the matrix and the armature before introducing the stent in the lumen.